

RESPONSE TO NOTICE OF NON-COMPLIANT AMENDMENT
Application No.: 09/913,611
Atty Docket No.: Q54917

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claims 1 and 2. (canceled).

Claim 3. (currently amended): A gas diffusion porous carbon sheet for a solid polymer fuel cell which comprises a carbon fiber woven fabric obtained by firing in a non-oxidizing atmosphere a cellulose-based woven fabric in a temperature range of 900-3000°C, and having a thickness in the range of 0.05-0.4 mm, a volume resistivity of less than 0.2 Ω•cm in the layer direction, and a gas permeability of not less than 1500 cc/cm²/hr/mmAq, and, wherein the electrical resistance in the direction of thickness of the woven fabric is no greater than 50 mΩ•cm² as measured between two copper plates with a load of 4 kgf /cm².

Claim 4. (currently amended): The gas diffusion porous carbon sheet for a solid polymer fuel cell carbon fiber woven fabric as claimed in claim 3, wherein the carbon fiber woven fabric has an orientation which includes an orientation component having an orientation (q/(p+q)) of 4/9 or greater.

Claim 5. (currently amended): The gas diffusion porous carbon sheet for a solid polymer fuel cell carbon fiber woven fabric as claimed in claim 3, wherein the carbon fiber woven fabric has an orientation which is an average orientation (q/(p+q)) of 1/3 or greater.

Claim 6. (currently amended): The gas diffusion porous carbon sheet for a solid polymer fuel cell carbon fiber woven fabric as claimed in claim 3, wherein the carbon fiber woven fabric which is a plain weave.

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Claim 7. (currently amended): The gas diffusion porous carbon sheet for a solid polymer fuel cell carbon fiber woven fabric as claimed in claim 3, wherein the carbon fiber woven fabric which has a water repellent property having a water absorption height of less than 2 cm, and wherein a water repellent resin is coated in an amount of 5 to 60% by weight based on the carbon fiber fabric.

Claim 8. (canceled).

Claim 9. (withdrawn): The process for manufacture of a carbon fiber woven fabric, characterized by firing a natural cellulose-based woven fabric in a non-oxidizing atmosphere.

Claim 10. (withdrawn): The process for manufacture of a carbon fiber woven fabric as claimed in claim 9, wherein said cellulose-based woven fabric is soaked with a phosphoric acid or phosphorus compound solution.

Claim 11. (withdrawn): The process for the manufacture of a carbon fiber woven fabric as claimed in claim 9, wherein the firing temperature is in the range of 900-3000°C.

Claim 12. (withdrawn): The process for the manufacture of a carbon fiber woven fabric as claimed in claim 9, which includes coating the fired carbon fiber woven fabric with a water-repellent resin.

Claim 13. (currently amended): The gas diffusion porous carbon sheet for a solid polymer fuel cell carbon fiber woven fabric as claimed in claim 3, wherein the compressive strength is not less than 70 kgf/cm².

Claim 14. (previously presented): The carbon fiber woven fabric as claimed in claim 3, wherein the cellulose-based woven fabric that is fired is a natural cellulose-based woven fabric.

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Claim 15. (currently amended): A carbon woven fabric obtained ~~by~~from a natural cellulose-based ~~weben~~woven fabric, and having a thickness in a range of 0.05 to 0.4 mm, a volume resistivity of less than 0.2 $\Omega\text{-cm}$ in the layer direction, and a gas permeability of not less than 1500 $\text{cc/cm}^2/\text{hr/mmAq}$.